



BOROUGH OF
Thornaby-on-Tees.

MEDICAL OFFICER'S
ANNUAL REPORT

For the Year ending 31st December, 1894

Thornaby-on-Tees :

D. MACKENZIE, THORNABY PRINTING WORKS, 54, MANDALE ROAD.

BOROUGH OF THORNABY-ON-TEES. MEDICAL OFFICER'S REPORT

For the Year ending Dec. 31st, 1893.

GENTLEMEN,

During the year 1893, 640 births and 275 deaths were registered in the Borough the birth-rate being 40·0 and the death-rate 17·18 per 1000 of the population—estimated at 16000. The natural increase to the population by excess of births over deaths was thus 365, or one life for every day in the year.

The birth-rate in 1893 was 3·19 per 1000 higher than in 1892, but 2·56 per 1000 lower than in 1891.

Of the 275 who died in 1893, 161 were males, and 114 were females. 101 died under 1 year, 47 between 1 and 5, 16 between 5 and 15, 8 between 15 and 25, 68 between 25 and 65, and 35 above 65 years of age.

The causes of mortality were registered as follows:—enteric or typhoid fever 9, scarlet fever 1, whooping-cough 7, croup 3, diphtheria 1, diarrhoea 19, brain diseases (including convulsions) 52, pulmonary diseases 62, phthisis 20, heart disease 10, atrophy and debility 33, and all other diseases 58.

40 deaths were ascribed in 1893 to zymotic or infectious diseases as against 22 in 1892, and 76 in 1891. The zymotic death-rate in 1893 was, therefore 2·5 per 1000 as against 1·37 in 1892, and 4·75 in 1891. The ordinary death-rate in 1893 from all other than zymotic causes was 14·68, as against 13·44 per 1000 in 1892, or an increase of 1·24 per 1000 for the year. It must be remarked, however, that the mortality, both zymotic and ordinary, in 1892, was the lowest of the last decade.

As to the epidemic history of the year: at the end of August and beginning of September, four cases of small-pox were removed from one house successively, to the Middlesbro' Fever Hospital, and at the end of November a fifth isolated case in another house was dealt with in the same way. The origin of both outbreaks has remained in obscurity and baffled my inquiries. No case had been reported since May, 1887. I desire to record my approval of the efficient services rendered on both occasions by Mr. MATTHEW SCOTT, your Sanitary Inspector. Besides the other means of re-vaccination, fumigation of houses, and destruction of bedding, &c., strict isolation was as far as possible enforced, and a thorough surveillance kept up over the infected families till all danger of fresh outbreak had passed away.

Though 37 cases of scarlet fever were notified in 1893, only one death was attributed to this cause.

Seven cases of diphtheria were notified, with one death. An insanitary arrangement of the ventilation of the water-closet was discovered in the fatal case, and remedied.

Four cases of croup with three deaths were notified in 1893.

59 cases of enteric fever (including seven of continued fever, practically dealt with as the same) occurred in 1893 with a mortality of nine. For purposes of comparison I insert the following table:—

Year	Total Cases	Mortality	Percentage of Deaths.
1890	148	33	22.29 %
1891	109	18	16.5 %
1892	33	4	12.1 %
1893	59	9	15.25 %

As the mortality from enteric fever is stated to be from 15 to 25 per cent., the type of the disease in the Borough may be called normal in its average. Being essentially a filth disease, every defect in the drainage or its ventilation, every impurity in the Water or Milk or other food supplies becomes a factor in its causation. Thanks to the use of the smoke-test, we have recently seen reason to think that some at least, of the cases in Mandale Road and Britannia Street have originated in otherwise unsuspected defects in the arrangements of the house drains, faulty connections with house down-comers, &c., which led to sewer gas being laid on to the detriment of the inhabitants of the houses. These discoveries point to the necessity for similar investigation wherever there is any complaint of bad smells not directly traceable to wet ashpits or other observed insanitary surroundings.

Seven cases of erysipelas were notified in 1893, but no deaths.

Seven deaths from whooping cough were recorded, mostly in the first quarter of the year.

General and systematic inspections of the Borough have been carried out during the year, and your Sanitary Inspector has furnished me with the following summary of the actual work in sanitary improvements and abatement or removal of nuisances:—

Yard drains opened out, cleansed and re-laid ...	...	41
„ walls repaired where dilapidated ...	...	64
„ surfaces relaid with concrete, &c. ...	...	85
„ „ partially relaid ...	...	67
„ walls cemented 2 ft. square near gullies...	...	50
Ashpit floors raised 3 inches above level of yard ...	...	77
„ properly ventilated...	...	7
„ roofs repaired ...	...	44
„ walls „ ...	...	45
Carried forward ...	...	480

Brought forward	...	...	...	480
Ashpit doors renewed	...	...	...	73
„ walls cemented all round 2 ft. above floor	...	...	...	43
„ roofs provided	...	...	...	4
„ —a nuisance substituted by pans	...	...	...	12
„ entirely rebuilt	...	...	...	4
Privies „ „	...	...	...	2
„ new stone risers instead of brick ones	...	...	...	20
„ walls, roofs, floors, doors repaired, &c...	...	...	...	61
Houses—over-crowding prevented	...	...	...	2
„ cleansed where dirty and insanitary	...	...	...	2
„ various repairs in roofs, floors, &c.	...	...	...	68
Wooden buildings in yards removed	...	...	...	7
Wet Bedroom walls remedied	...	...	...	7
New Pans to Pan-Closets	...	...	...	22
Gullies re-set	...	...	...	7
New gullies properly connected in place of defective ditto.	...	...	...	54
New grate to gully	...	...	...	1
„ soil pipe and ventilator to W.C.	...	...	...	1
Defective sink-stone discharge pipes remedied...	...	...	...	3
Pigs, pigeons, and poultry removed	...	...	...	9
Accummulations of filth, &c. removed	...	...	...	8
House supplied with water	...	...	...	1
Water over-running back street prevented	...	...	...	2
TOTAL				893

All these improvements should have an effect on the general health and well-being of the Borough, and its inhabitants. I can only advise continuance of earnest work in the same directions.

The Milk-Shops and Slaughter-Houses have been inspected from time to time and found satisfactory. They are all registered.

During the year, under the Sale of Food and Drugs Act, twelve samples were submitted for analysis to the Borough Analyst, Mr. A. C. WILSON, F.C.S. Of 8 samples of new milk, one was declared to be adulterated and two of inferior quality. Of 3 samples of whiskey, one was pronounced to be adulterated. One of Vinegar was genuine. No legal action has been taken on these reports, except to warn the delinquent milk and whiskey vendors of future retribution in case of default to supply the unsophisticated articles.

The history of the year 1893 is expressed in three words—progressive sanitary work—and points at once to a moral for the future, and to the motto of the Borough—“ALWAYS ADVANCING”.

I am, yours respectively,

THOMAS WATSON, M.D., & C.M.,

6th February, 1894,

Thornaby-on-Tees.

Medical Officer of Health.

BOROUGH ANALYST'S REPORT.

STOCKTON-ON-TEES,

January 30th, 1894.

To the Chairman and Members of the Sanitary Committee,

GENTLEMEN,

During the year ended on January 11th, 1894, twelve samples were submitted to me for analysis by the Inspector appointed under the Act.

The samples consisted of:—

8 samples of New Milk, of which one was adulterated and two of inferior quality.

3 samples of Whiskey, one of which was adulterated.

1 sample of Vinegar, which was genuine.

Taking the population of Thornaby-on-Tees as 16000, the number of samples of all kinds taken under the Food and Drugs Act is practically one sample for every 1333 persons.

Of the samples analysed 16.66 % were adulterated, 16.66 % inferior and 66.66 % genuine.

I have the honour to be, Gentlemen,

Yours faithfully,

A. C. WILSON.



THORNABY-ON-TEES :

Printed by D. Mackenzie, Thornaby Printing Works, 54, Mandale Road.

BOROUGH OF THORNABY-ON-TEES

Medical Officer's Annual Report

For the Year ending 31st December, 1894.

GENTLEMEN.

During the year 1894, 552 Births, and 283 Deaths were registered in the Borough of Thornaby-on-Tees, or a natural increase to the population by excess of Births over Deaths of 269. This increase is less by 96 than in 1893. On an estimated population of 16,000, the Birth-Rate was 34·5, and the Death-Rate, 17·6875 per thousand per annum.

Of the persons who died in 1894, 150 were males and 133 females: 84 died under one year, 48 between one and five, 16 between five and fifteen, 21 between fifteen and twenty-five, 79 between twenty-five and sixty-five, and 35 above sixty-five years of age. Total 283. The ratio of the deaths of males to that of females was as 9·375 to 8·3125 per 1000 of the total population living at all ages: that is, the mortality among males was 1·0625 per 1000 greater than amongst females. Under one year of age the death-rate was 5·25; between one and five, 3; while above five years of age it was 9·4375 per 1000 of the total estimated living population. In other words 8·25 per 1000 of the estimated population died under five years of age, while 9·4375 per 1000 died above five years of age. By comparison with the year 1893, the death-rate under five years in 1894 was 1 per 1000 lower, while the death-rate above five years of age was 1·5 per 1000 higher.

The causes of mortality in 1894 were registered as follows:—Enteric or Typhoid Fever 4, Scarlet Fever 7, Croup 7, Diphtheria 3, Measles 6, Diarrhœa 5, Erysipelas 2, Puerperal Septicæmia 1, Whooping Cough 1, Brain Diseases (including Convulsions) 40, Pulmonary Diseases 62, Phthisis 27, Heart Disease 16, Cancer 7, Atrophy and Debility 21, Natural Decay 18, and all other Diseases 56; total 283.

35 deaths were ascribed in 1894 to Zymotic Diseases, as against 40 in 1893, 22 in 1892, 76 in 1891, and 99 in 1890. The significance of these facts may be better grasped in the form of this table: .

Year	Total Deaths	Zymotic Mortality	Zymotic Death-rate	Non-Zymotic Death-rate	Total Death-rate
1890	351	99	6·1	15·8	21·9
1891	363	76	4·75	17·93	22·68
1892	237	22	1·37	13·44	14·81
1893	275	40	2·5	14·68	17·18
1894	283	35	2·1875	15·5	17·6875

The Zymotic death-rate was '3125 per thousand lower than in 1893, but '8175 higher than in 1892, which has the distinction of having the lowest Zymotic and General death-rates over a period of more than ten years.

During the year 1894, 222 cases of scarlet fever, 41 cases of enteric fever, 5 cases of continued fever, 8 cases of diphtheria, 8 cases of croup, 12 cases of erysipelas, and one case of puerperal fever have been notified under the Infectious Diseases (Notification) Act, 1889.

The principal epidemic of the year has, therefore, been scarlet fever, with a mortality of seven, or 0·4375 per thousand of the estimated population, or 3·1 per cent. of the total number of cases notified. As the death-rate from scarlet fever is said to range from 6 to 16 per cent. this mortality may be considered satisfactorily low. In my January monthly report I noted the fact of an increase in the disease from the opening of the Schools after the Christmas recess. In February, I also drew attention to the fact that there were probably mild cases allowed to return to school too early during convalescence, and so to disseminate the disease. As the year rolled on it became conclusive, to my mind, that something more urgent was required to awaken careless parents to their responsibility, and so a warning bill was drawn up by your Town Clerk, and an instructing bill by your Medical Officer, giving guidance as to the means of preventing the dissemination of this and other infectious diseases. These bills were spread broadcast in the town in October, and are also distributed to each infected household as cases arise.

Further, in August Monthly Report, I recommended "that henceforth no child should be allowed to attend school from an infected family till a written certificate from myself or the practitioner in attendance has been granted."

The Sanitary Committee adopted the suggestion with a recommendation to the Council "to pay any expense incurred thereby," and on the 11th September the Thornaby-on-Tees School Board intimated that they had instructed their teachers and school wardens "not to allow any children from an infected family to attend school until a certificate of health had been given by the Doctor in attendance."

So far the arrangement has worked well, and helped to limit the spread of Scarlet Fever by school attendance. Still all who are familiar with public health administration know that children are frequently sent to school while suffering from Scarlet Fever in a slight form, and often without any suspicion on the part of the parents of the real nature of the case.

I recorded a case in September Report in which two children had been attending school from an infected family for a fortnight nearly, until a second case occurring and medical attendance being called, the true nature of the disease was revealed. Such leakages are unavoidable, but, nevertheless, dangerous to the community.

On the point of payment for certificates of infection or immunity from infection, it appears to me that if the public safety demands Medical evidence of such facts, it is only reasonable that the public purse should bear the cost, and not the poorer classes who must either pay a tax they can ill afford, or draw as they may, on the good-natured charity of the Certifier.

In 1890, there were 91 cases of Scarlet Fever notified, with five deaths, or 5·4% ; in 1891 there were 56 cases with 2 deaths, or 7·1% ; in 1892 there were 37 cases and no death ; and in 1893 there were also 37 cases with one death, or 2·7% ; while in 1894 there were 222 cases with 7 deaths, or 3·1%.

Only two cases were removed to Middlesbro' Fever Hospital during the year, and these not at the expense of the town. I am persuaded that not until the Borough possesses an Isolation Hospital of its own will your officers be able with any great measure of success to cope with such diseases as scarlet fever, or small pox, &c. Time after time, in my experience, on a *first* outbreak of infectious disease it might have been possible to isolate a case or two and so stamp out the disease in the very outset. But the people will not support the efforts of the Sanitary Officers, and will not consent for the sake of the general welfare to the removal of a member of the family to Middlesbrough. And so after about fifteen years experience in the town I am being driven more and more to the conclusion that an Isolation Hospital is an absolute necessity in public health matters. You may have your Compulsory Notifications of infection or immunity from infection ; you may have careful officials with plenty of disinfectants and galore of inspection, and efficient and thoroughly methodical Scavenging, and yet want the very best thing of all, the keystone to the whole health administration—an Isolation Hospital. Towns of the same size have such necessities provided, and why should not we face the question in the near future ?

Fortyone cases of Enteric Fever, and five of Continued Fever occurred in 1894, as against 52 of the former, and 7 of the latter in 1893. One of the cases of Enteric Fever was an importation. A considerable number of the cases were confined to only one in each family affected ; but in other cases, from two even to four in the same house were seized. I am inclined to think that amongst the poorer classes one source of infection is the use by others in the family of the same food utensils which ought to be kept entirely for the patient, and not used till thoroughly scalded or similarly disinfected.

The pans for the reception and removal of the excreta are distributed to each case and all other necessary precautions taken, such as emptying and disinfecting ash-pits in the neighbourhood, supply of disinfectants, &c.

In one of the eight cases notified as *Diphtheria*, the leakage of sewer-gas through an old dis-used drain into a cellar was found by the smoke-test, to be the probable cause, and was promptly attended to,

Measles was astir, more or less, from April to August, with a total mortality of six,

Twelve cases of Erysipelas in 1894, as against seven in 1893. The mortality was 2 for the year under review, as against none in the previous year.

Curiously enough, while Brain Diseases (including Convulsions), claimed a mortality of 40 in 1894, as against 52 in 1893, the mortality from Pulmonary Diseases (such as Bronchitis and Pneumonia) was the same in both years, viz. : 62.

Phthisis claimed a death-roll of 27 in 1894, as against 20 in 1893.

To Heart Disease 16 were set in 1894, as against 10 in 1893,

Atrophy and Debility decreased to 21 in 1894, as against 33 in 1893—a satisfactory item.

Inquests were held on 14 deaths in 1894, as against 8 in 1893.

General and particular inspections of the Borough have been made throughout the year, and your Sanitary Inspector has furnished the following summary of actual Sanitary work done :

Yard Drains Opened Out, Cleaned and Relaid	...	...	21
Yard Drains Repaired	...	...	9
Yard and other Drains provided with Buchan Traps, &c.	...	...	7
Additional Drains laid where necessary	...	...	6
Yard Surfaces re-laid with Concrete	...	...	19
„ Surfaces Repaired	...	...	24
„ New Provided to Premises	...	...	1
„ Walls Repaired	...	...	3
„ Walls Re-built	...	...	20
„ Walls Cemented 2 feet square near Gully	...	...	21
„ Walls Repaired where delapidated	...	...	13
„ Wooden Buildings Removed	...	...	6
„ Door Provided	...	...	1
Ashpit Doors Removed and Renewed	...	...	56
„ Walls Repaired	...	...	22
„ Roofs Provided	...	...	5
„ Ventilated	...	...	4
„ New where necessary	...	...	6
„ Floors raised 3in. above level of Yard	...	...	21
„ Walls Cemented 2 feet above Floor	...	...	16
„ Roofs Repaired	...	...	1
„ Wooden Removed	...	...	3
„ Abutting on Living Rooms Removed	...	...	1
Privy Door Provided	...	...	1

Privy Stone Risers instead of Brick ditto	...	...	9
„ And Ashpits substituted by Pans	...	...	14
„ Roofs, Floors, Risers and Walls Repaired	...	...	15
„ New Seats Provided	...	...	3
„ New Seats Erected	...	...	8
„ Wooden Removed	...	...	4
„ Abutting on Living Rooms Removed	...	...	15
New Pans to Pan Closets	...	...	34
Ventilating Pipe to W. C. Fall Pipe	...	...	1
Window into W. C. from the open air	...	...	1
Gullies Defective, Replaced by Trapped Sanitary Ditto	...	...	21
„ New, where necessary	...	...	8
„ Re-set	...	...	4
„ New Grate to same	...	...	2
Grate New to Air Inlet of Trap	...	...	1
House Roofs Repaired	...	...	19
„ Floors Repaired	...	...	8
„ Generally Repaired	...	...	14
„ Filthy, Cleaned, &c.	...	...	2
„ Spouts Provided or Repaired	...	...	17
„ Downcomers Provided or Repaired	...	...	13
Sink-stone Discharge Pipes Repaired	...	...	3
„ „ „ Provided	...	...	2
Water Pipe Leaky Repaired	...	...	1
Water thrown upon Street surface discontinued	...	...	1
Poultry, pigeons, &c. done away with	...	...	6
Accumulation of filth removed	...	...	2
Cesspool cleaned and repaired	...	...	1
Stagnant Gutter drained and filled in	...	...	1
Subway cleansed	...	...	1
Coalhouses provided	...	...	2
Urinal provided in Public House yard	...	...	1
Cellar Floor relaid	...	...	1
Hatchway Grating repaired	...	...	1
Handrail found to stairs	...	...	1
Five Public Schools fumigated, whitewashed and woodwork washed with Carbolic Acid	...	...	5
Disinfectants supplied to the following No. of Persons	...	...	926
Houses fumigated	...	...	121
Ashpits specially emptied	...	...	114
No. of persons to whom whitewash brushes have been lent	...	...	256
Total	...	...	<u>1946</u>

In the course of the year the Milk-Shops and Slaughter-Houses, which are all registered, have been found satisfactory.

No action has been taken during the year under the Food and Drugs Act.

Thornaby Village Pump was analyzed and found impure from various sources. On being cleaned out, an artificial filter bed was made of one foot of coarse pit-sand, ten feet of pit-gravel, and ten feet of brick-bats at the bottom. On a second analysis the water was found to be pure. Means were taken to prevent surface impurities from getting into the well.

As to future Sanitary measures within your area, I trust there will be no delay in paving, &c., the streets near the Erinus, and any others in the town that have not yet been. In their present state they must be injurious to the public health.

I am, yours faithfully,

THOMAS WATSON, M.D.,

Medical Officer of Health.



Thornaby-on-Tees :
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54, MANDALE ROAD.



